

Dielectric Resonator ;  $D > L$

Fig. 1

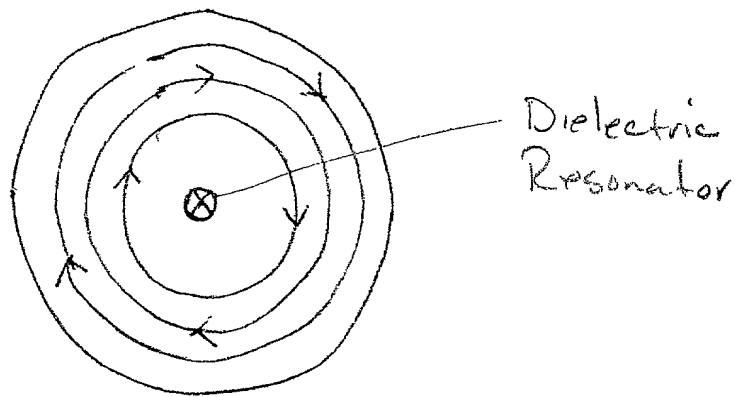


Fig 2

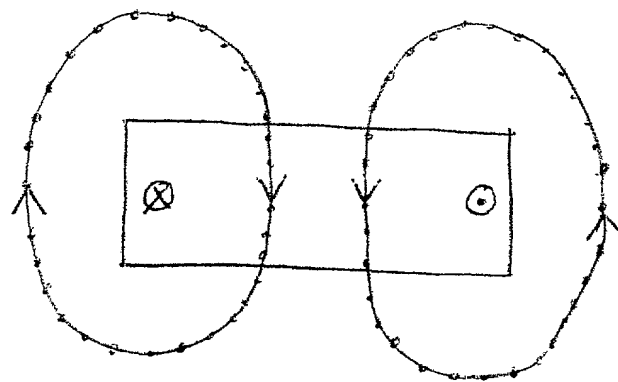


Fig. 3

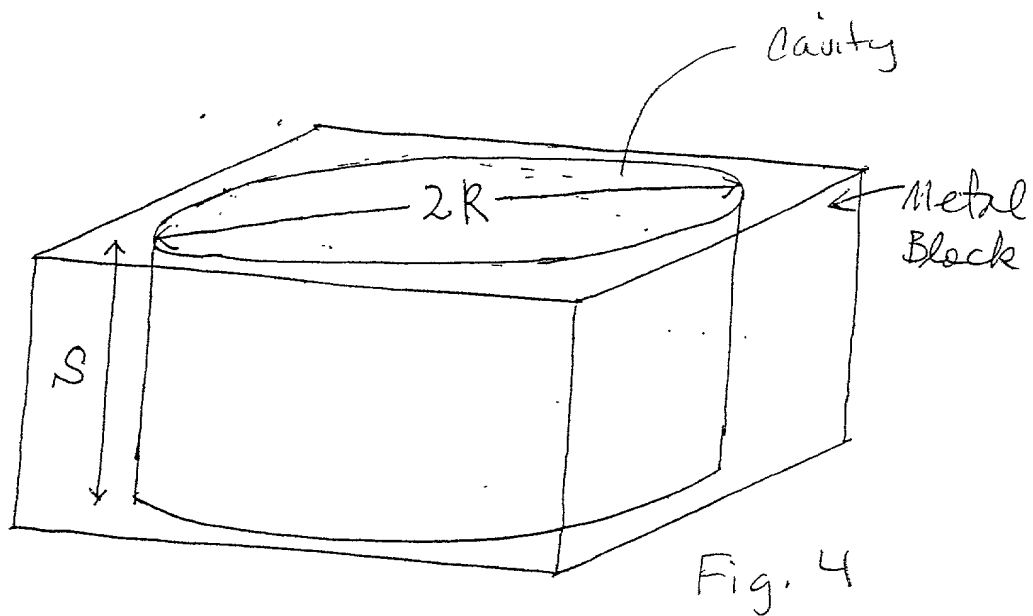


Fig. 4

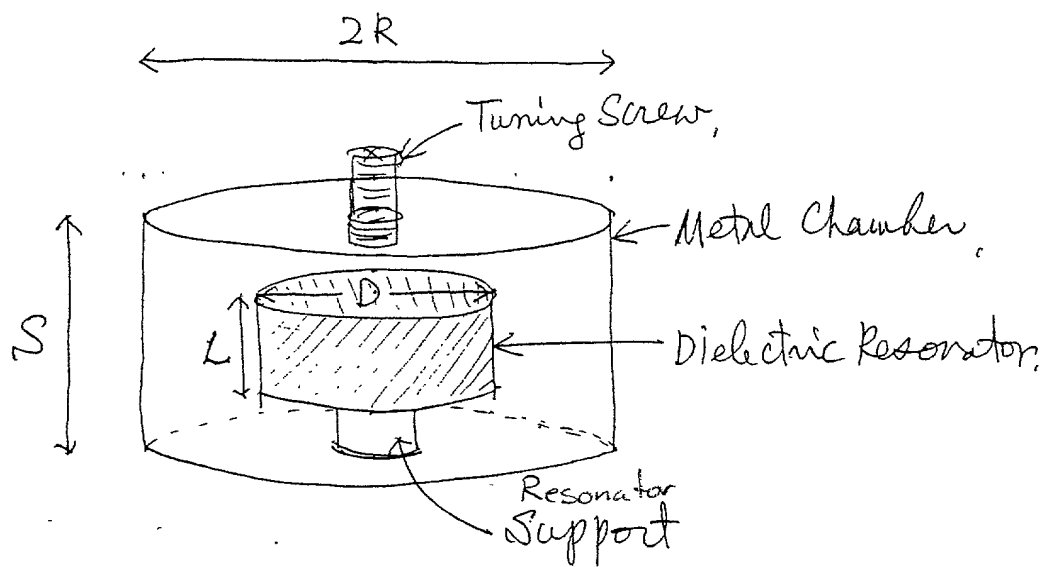


Fig. 5

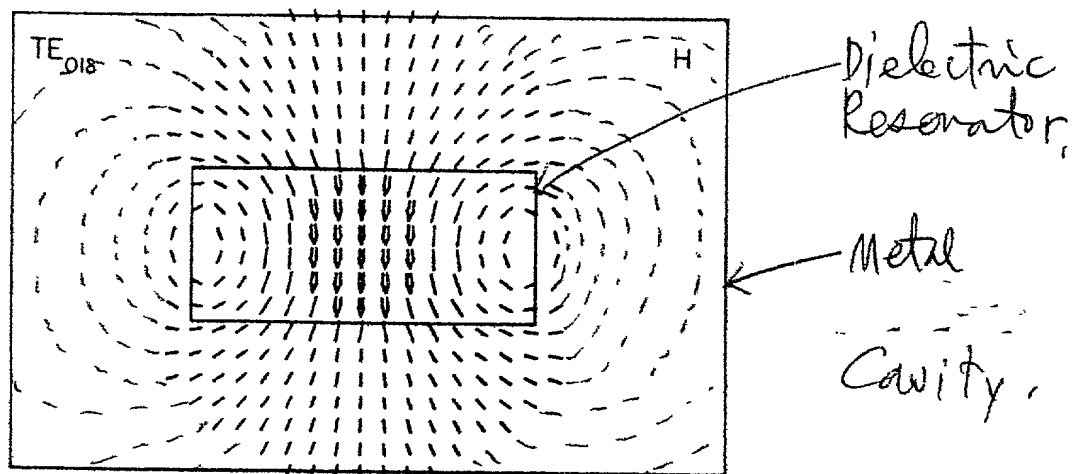
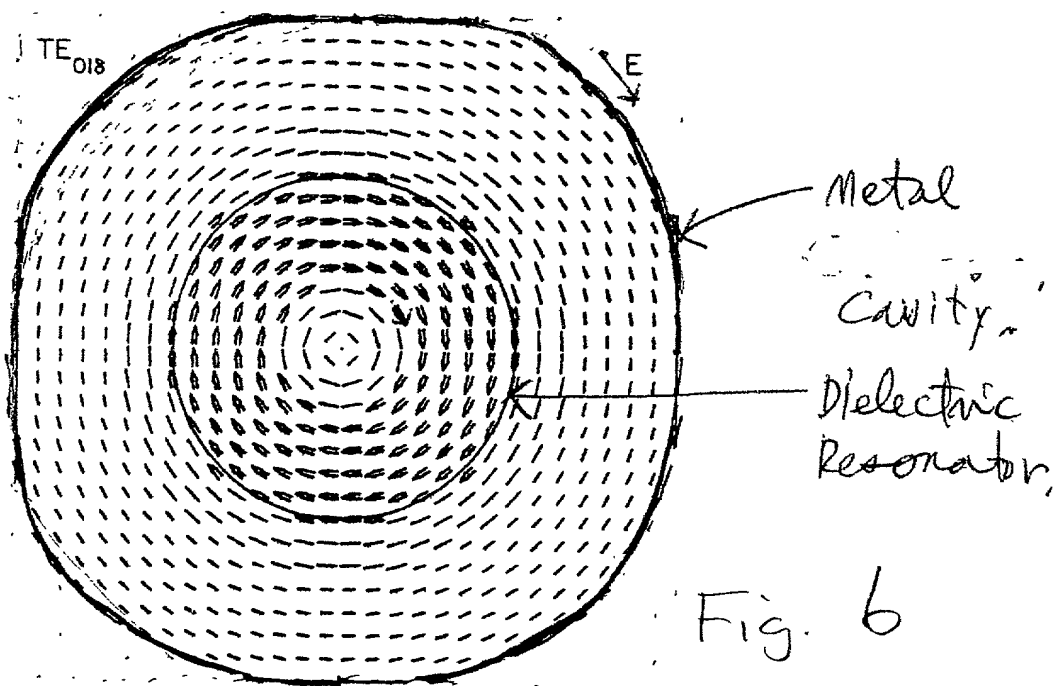


Fig. 7

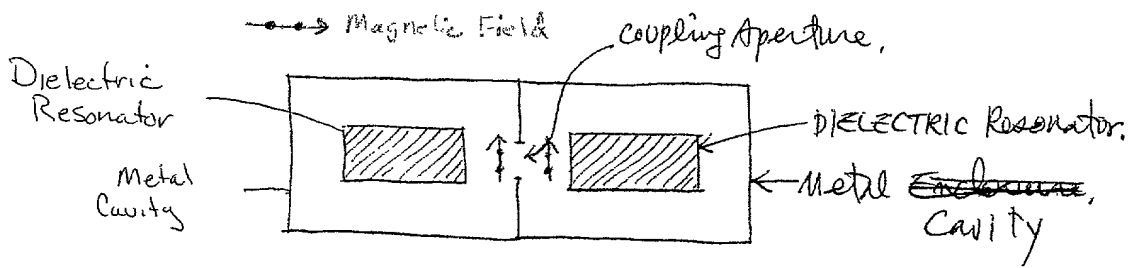


Fig. 8

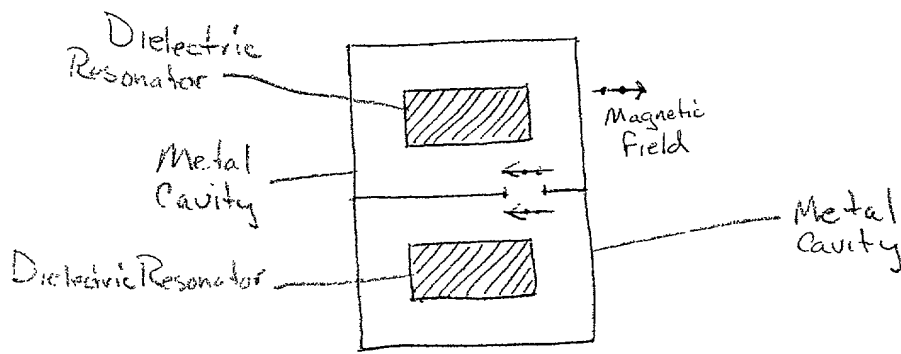


Fig. 9

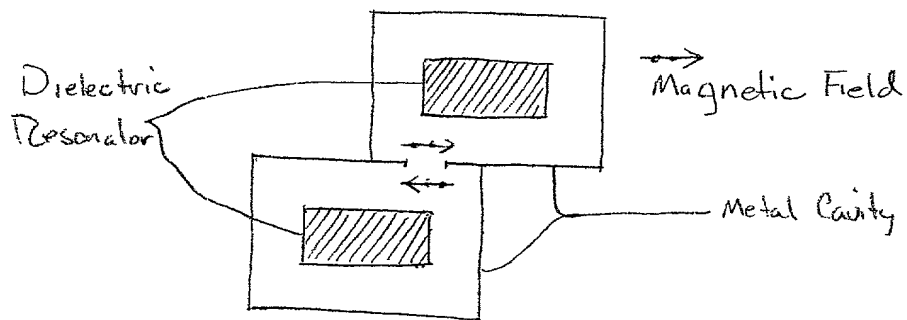


Fig. 10

TOP SECRET

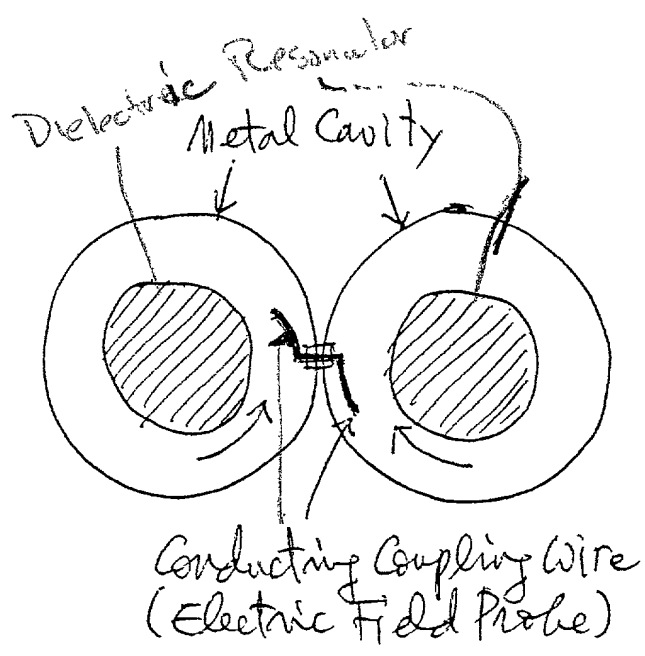


Fig 11

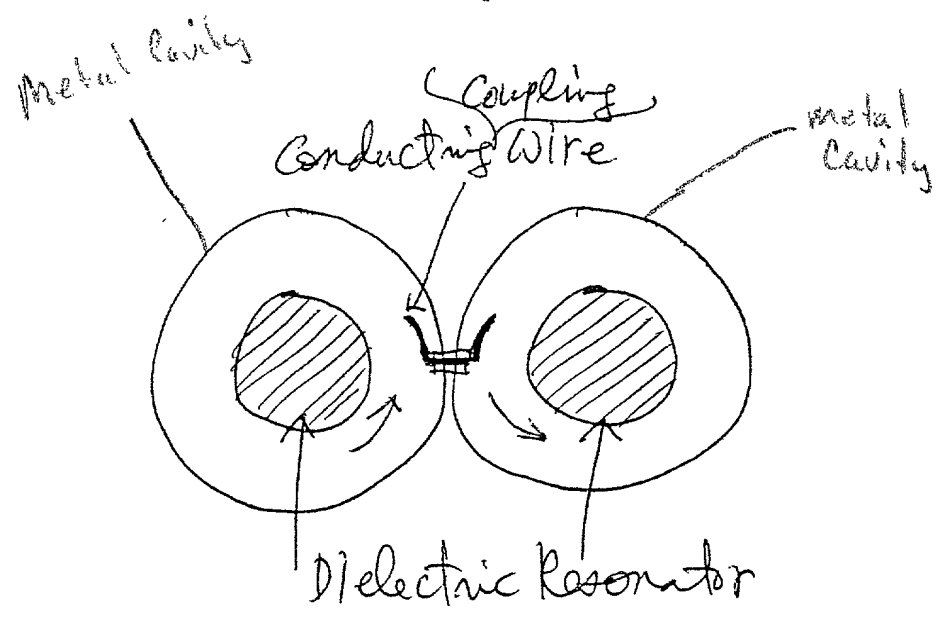


Fig. 12

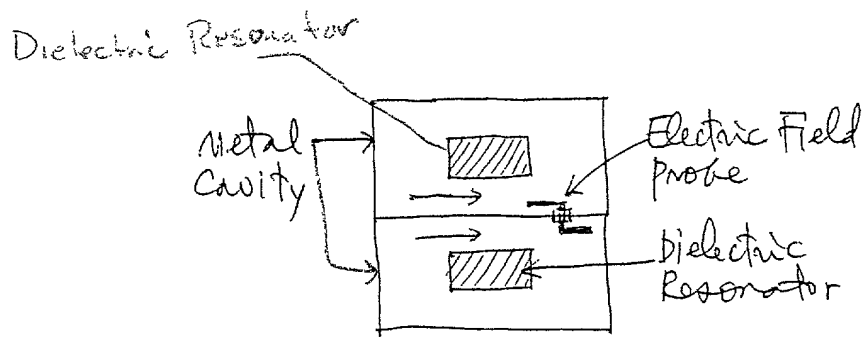


Fig 13

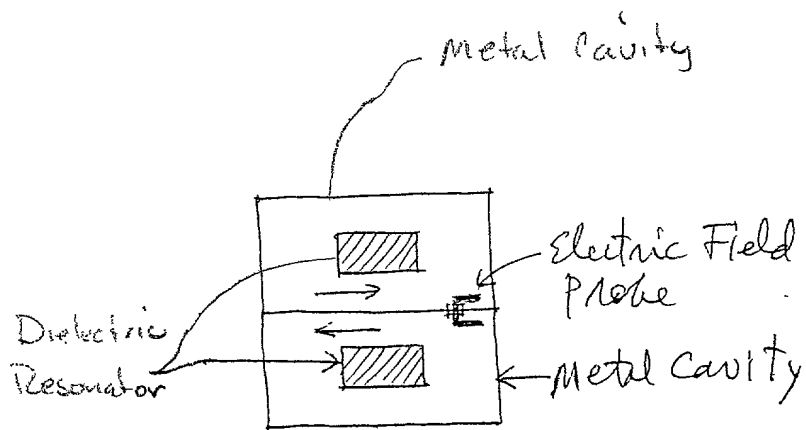


Fig. 14

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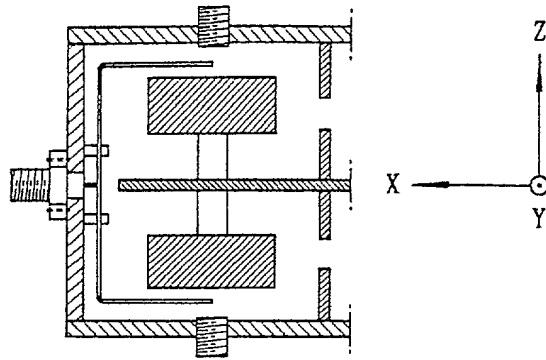


Fig. 16

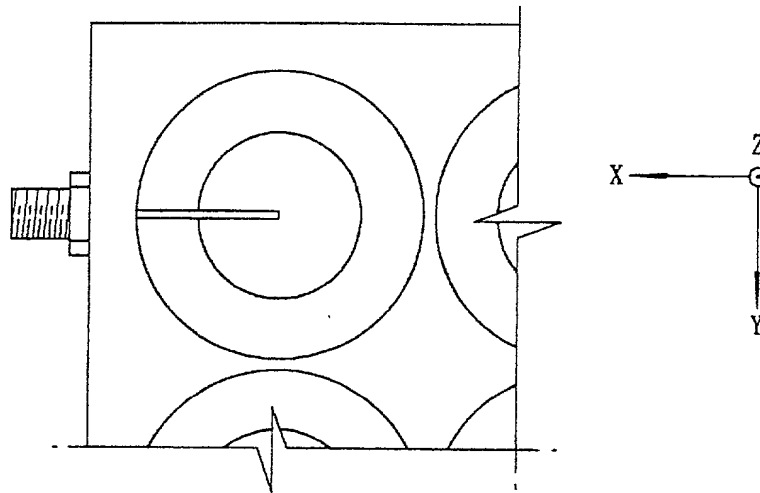


Fig. 17



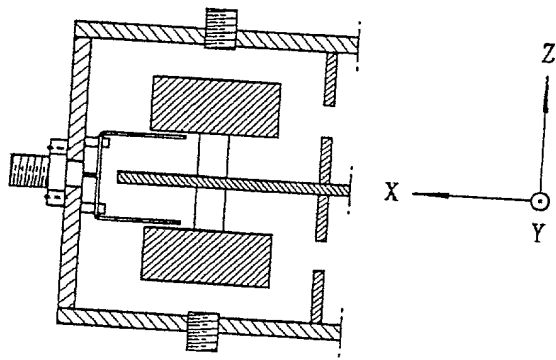


Fig. 18

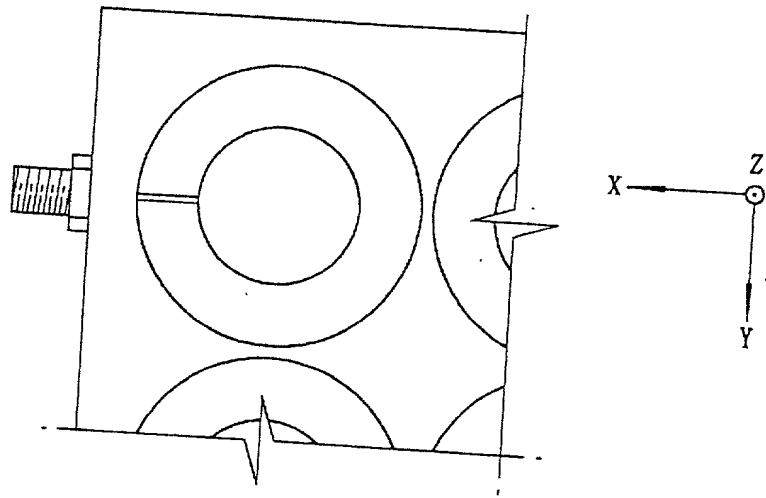


Fig. 19

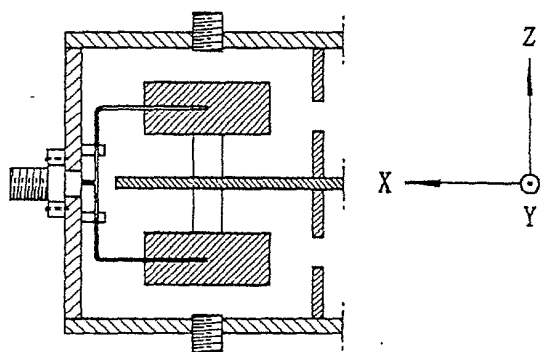


Fig. 20

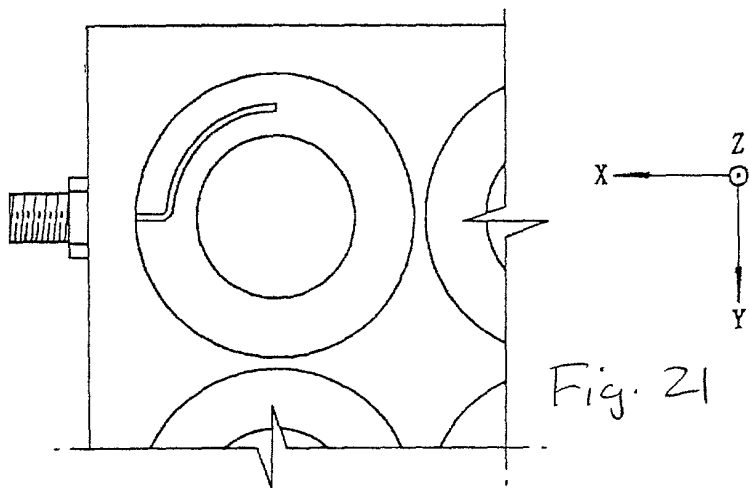


Fig. 21

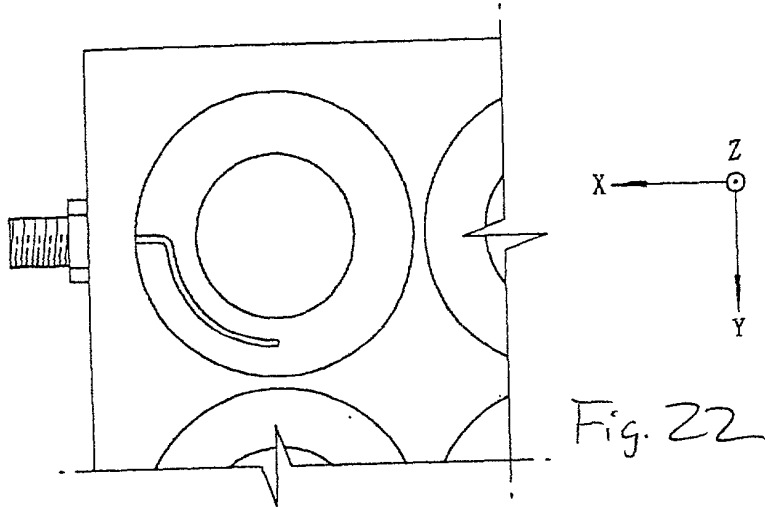
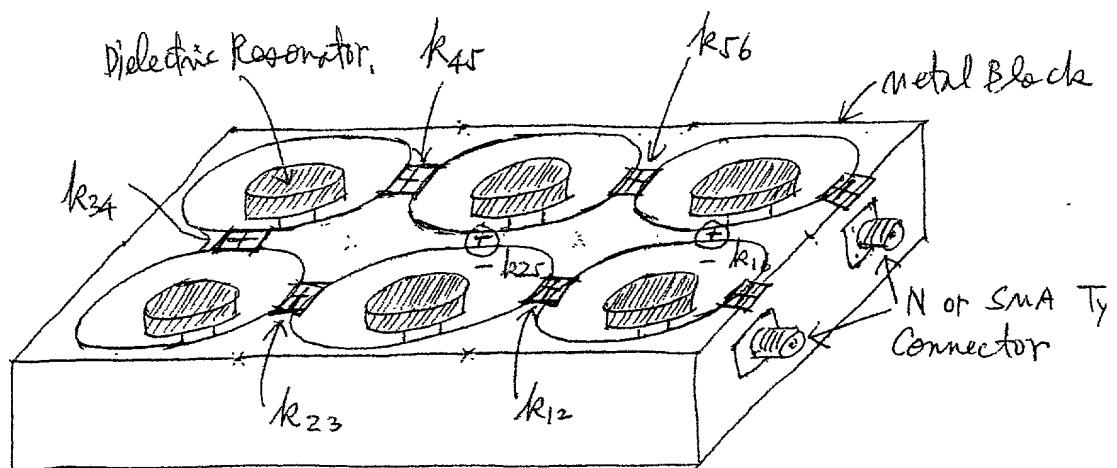


Fig. 22



⊕ : POSITIVE IRIS OR ELECTRIC FIELD PROBE COUPLING  
 ⊕ : NEGATIVE ELECTRIC FIELD PROBE COUPLING

Fig. 23

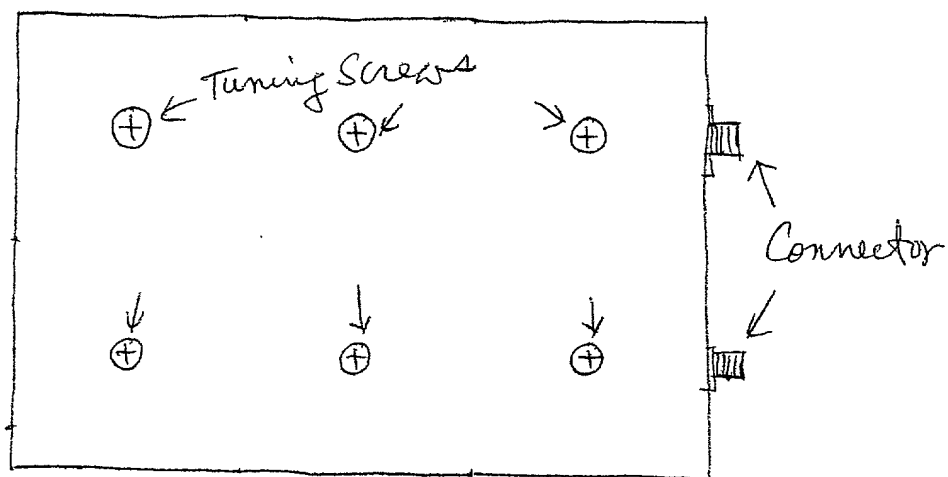
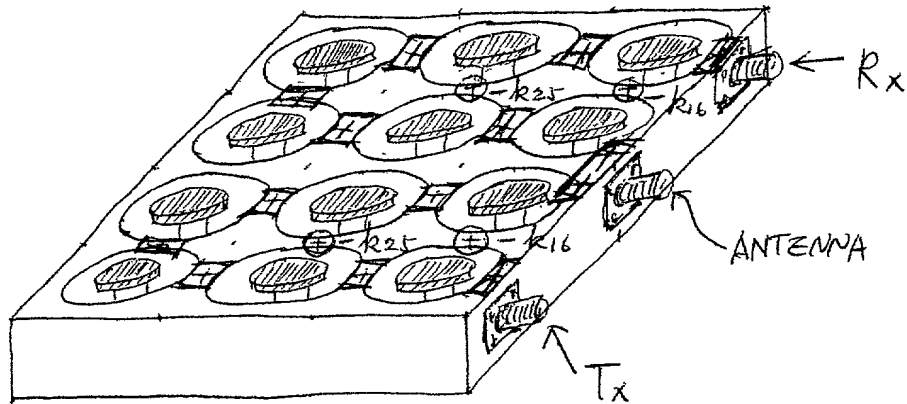


Fig. 24



- $\boxed{++}$  : IRIS or Electric Field Probe Antenna Coupling.  
 $\boxed{+}$  : Positive IRIS or Electric Field Probe Coupling  
 $\oplus$  : Negative Electric Field Probe Coupling.

Fig 25

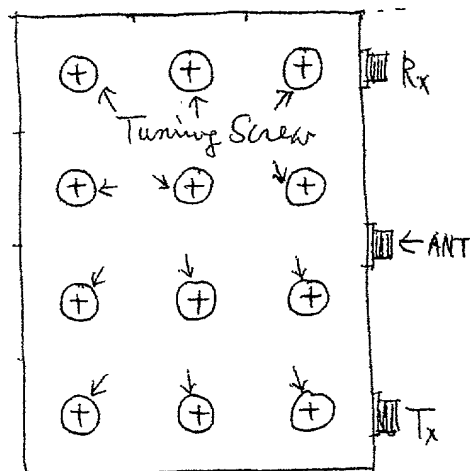
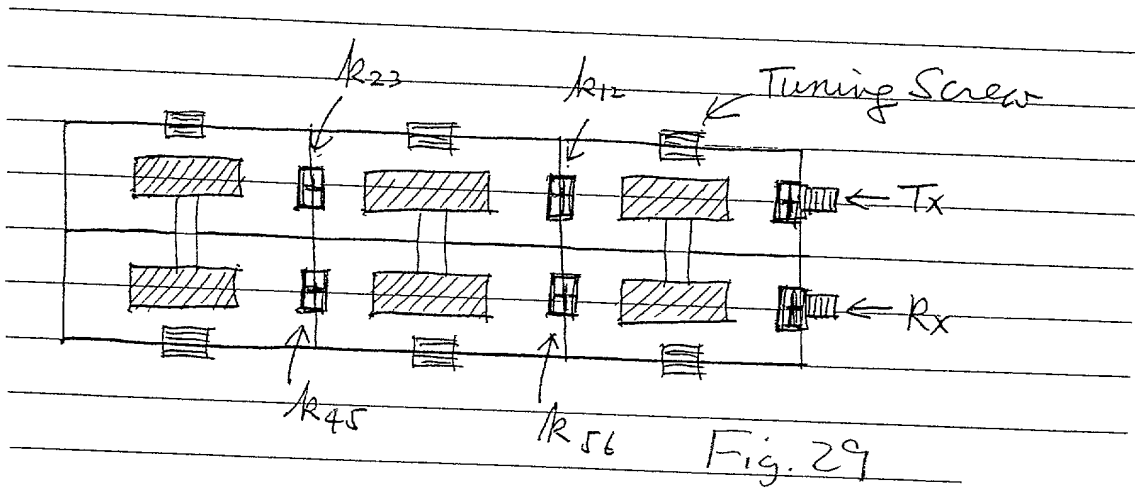


Fig. 26

Hand-drawn schematic diagram of a radio receiver circuit, labeled Fig. 28. The circuit is a two-stage tuned circuit. It features two horizontal lines representing the power rails. Between these rails, there are two identical stages. Each stage consists of a series of components: a tuning screw (represented by a small rectangle with a vertical line), a variable capacitor (represented by a rectangle with diagonal hatching), a fixed capacitor (represented by a small rectangle with a vertical line), and another variable capacitor. The stages are coupled by mutual inductances, labeled  $k_{45}$  and  $k_{56}$  for the first stage, and  $k_{23}$  and  $k_{12}$  for the second stage. The output of the second stage is connected to an antenna (ANT) through a connector, which is also labeled "Tx Filter". A "Rx Filter" is shown at the input of the first stage. The diagram is labeled "Fig. 28" at the bottom right.



Downloaded by [unclear]

Dielectric Resonator

Support

Tuning Screw

Connector

Tuning Screw

$k_{23}$

$k_{12}$

$k_{34}$

$k_{45}$

$k_{16}$

$-k_{25}$

Fig. 31

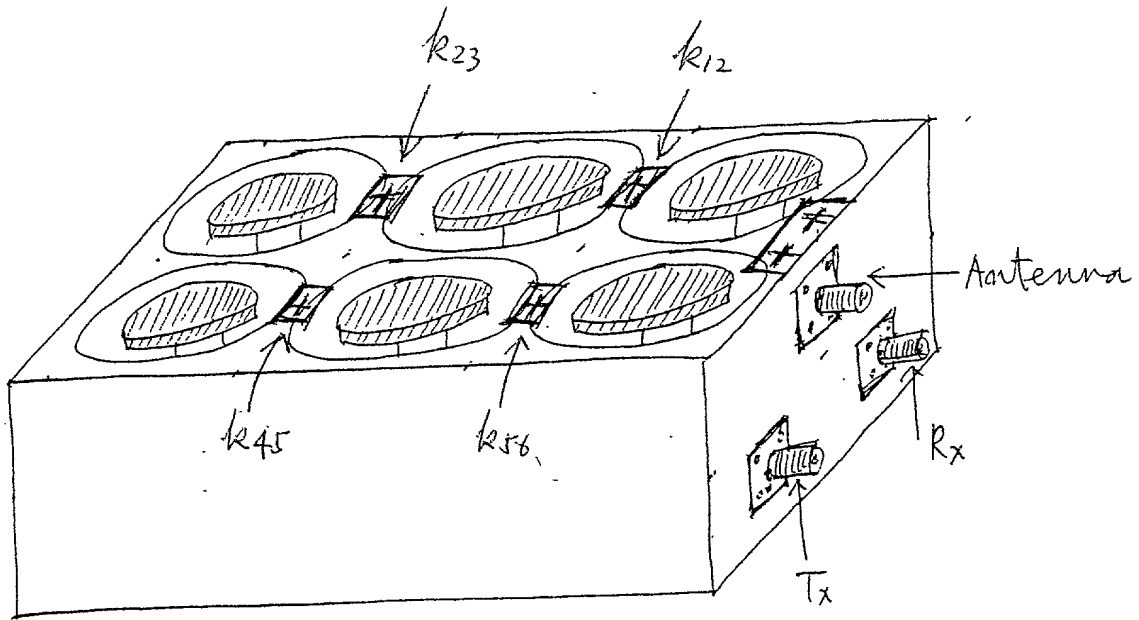


Fig. 32



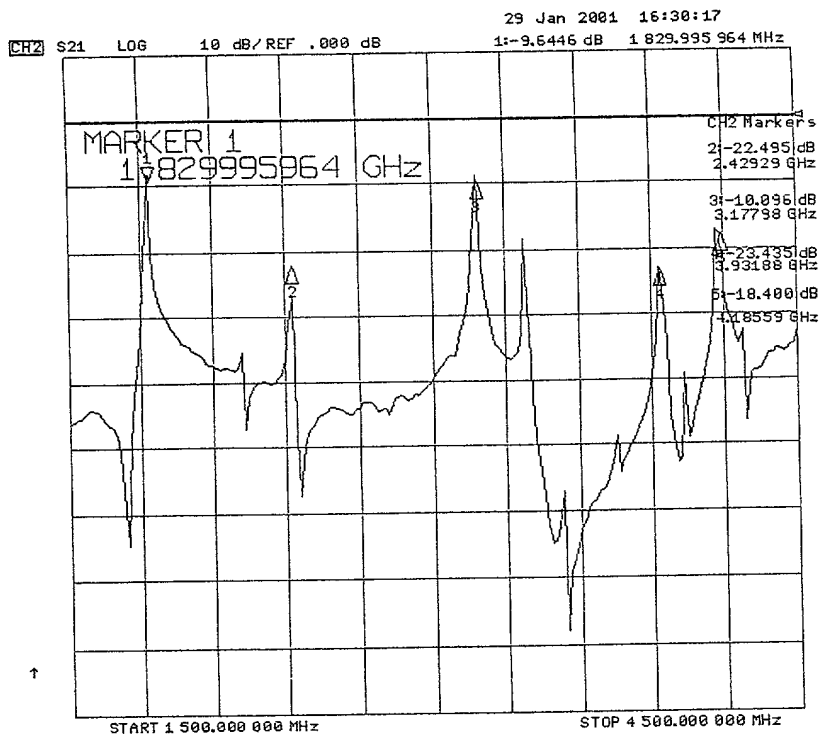
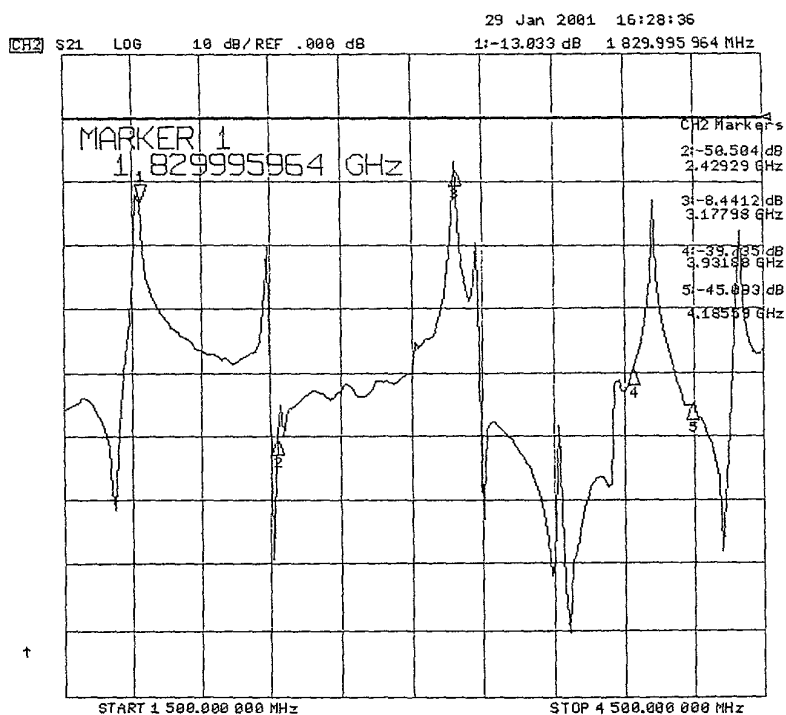
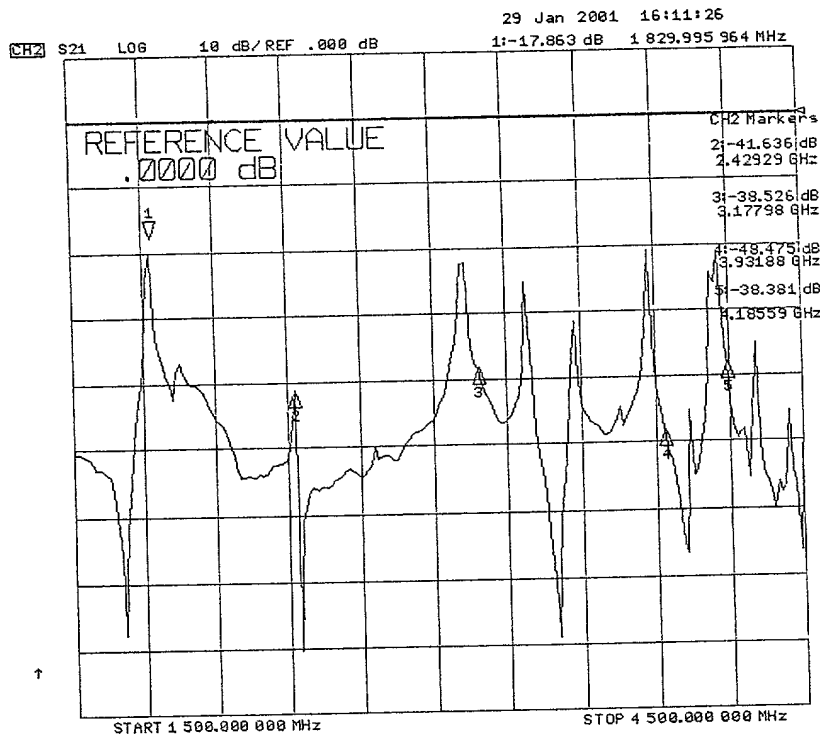


Fig. 33. Frequency response of D.R.1 loaded C1.  
 D.R.1 = Dielectric Resonator of  $D=2.8\text{ cm}$ ,  $L=1.4\text{ cm}$   
 and C1 = Metal Cavity of  $2R=7.5\text{ cm}$ ,  $S=3.75\text{ cm}$



1034  
Fig. 14. Frequency response of D.R. 2 loaded C 1,  
D.R. 2 = Dielectric Resonator of  $D = 3 \text{ cm}$  and  $L = 1.17 \text{ cm}$ ,  
and C 1 = Metal Cavity of  $2R = 7.5 \text{ cm}$  and  $S = 3.75 \text{ cm}$



35  
Fig. 35, Frequency response of D.R.1 loaded C2.  
D.R. 1 = Dielectric Resonator of  $D=2.8\text{ cm}$  and  $L=1.4\text{ cm}$ ,  
and C2 = Metal Cavity of  $2R=8\text{ cm}$  and  $S=4\text{ cm}$

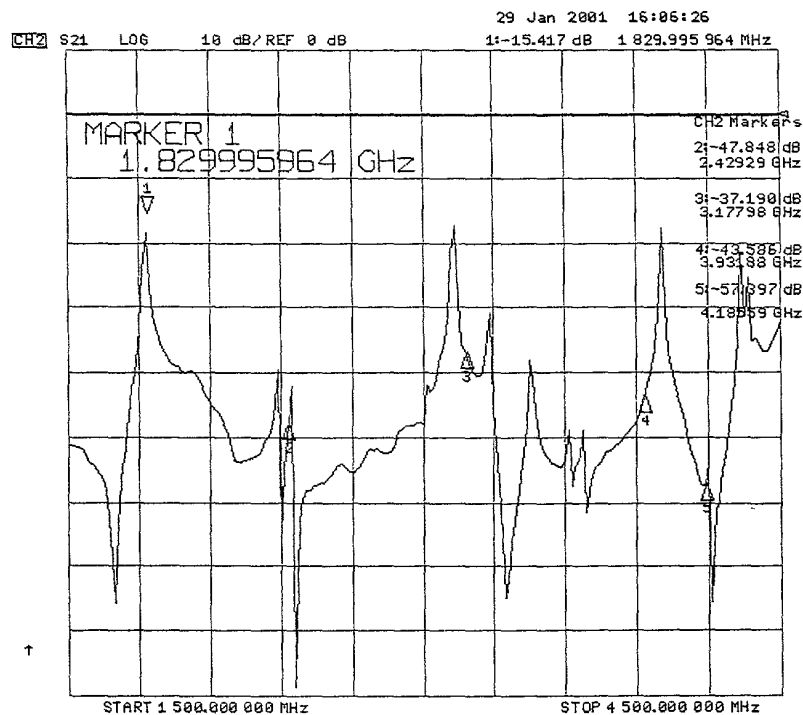


Fig. 36. Frequency response of D.R.  $\epsilon$  loaded C2.  
 D.R.  $\epsilon$  = Dielectric resonator of  $D = 3 \text{ cm}$  and  $L = 1.17 \text{ cm}$   
 and C2 = Metal Cavity of  $2R = 8 \text{ cm}$  and  $H = 4 \text{ cm}$ .